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INFORMATION REPORT

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REPORT

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COUNTRY Czechoslovakia

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**THIS IS UNEVALUATED INFORMATION**

1. In 1949, TOS (Factory for Production of Machine Tools), National Enterprise, in Kurim (N 49-18, E 16-32) ordered three identically designed electric drive units from MEZ Vsetin in Vsetin (N 49-20, E 18-00). They were to be used in molding machines produced at TOS. The first unit was delivered at the end of 1950 and was for the molding machine which TOS Kurim used in its plant. The second and third units were delivered during 1951. The second unit was for a molding machine destined for the V.I. Lenin Works in Pilsen, Vehicle Division. [redacted] it was to be used in Department 83 which was the department for tank production. An official from the Vehicle Division visited MEZ Vsetin in early spring 1951 to urge soonest possible delivery because of the importance of the unit. [redacted]
- The electric drive was a Ward-Leonard type; its DC motor delivered an output of 30 kw. at 1,500 rpm. The revolutions could be regulated down to 50 rpm by means of an amplidyne. The top bench speed was 1,500 millimeters per minute at 1,500 rpm; the lowest speed was 50 millimeters per minute at 50 rpm. The regulation of speed was very accurate; the lowest speed could actually be achieved at from 49 to 51 rpm in both directions and with no load. The entire electric drive was completed and installed by the TOS plant itself.
2. In 1950, TOS in Kurim ordered 36 electric drive units for another type of molding machine which source was unable to describe. Deliveries of these units started in 1952 and there were still some units to be delivered as of late summer 1954. The DC drive was rated for 15 kw. at from 750 to 1,500 rpm. The motor was of the same type as mentioned in paragraph 1 above, but the generator was only rated for one half as much output as the generator in the above-mentioned drive.
3. TOS Kurim produced molding machines for both domestic and Satellite markets. Around 1952, the plant manufactured several planing machines with thyatron feeding. This was for experimental purposes only. The machines developed an output of 7.5 kw. at from 750 to

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1,500 rpm. [redacted]

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[redacted] the TOS development plant in Prague-Liben, Na Zertvach Street, was also engaged in experiments with thyatron feeding.

4. As of late summer 1954, the Specifications Department of MEZ Vsetin worked on the electric drive for a molding machine which was developed in ZPS (Precision Machinery Works) in Gottwaldov. The bench width of this machine was 3,150 mm. The bench was to be driven by two DC motors, each of which was rated for an output of 15 kw. at from 750 to 1,500 rpm. The generators were to be regulated by an amplidyne. Only this one unit had been ordered as of late summer 1954.
5. Some of the mechanical parts of the molding machines mentioned in this report were the same size as mechanical parts of the planing machines for which MEZ Vsetin delivered the electric drives.<sup>1</sup> The ZPS Gottwaldov molding machine, mentioned in paragraph 4 above, was of the same size as the H 31 50 planing machine.<sup>1</sup> There was an agreement between Czechoslovakia and Hungary to the effect that the production of molding machines with a single cutting-tool support would be Hungary's responsibility while Czechoslovakia would produce molding machines with a frame cutting-tool support. These were usually larger machines than those with the single support.
6. MEZ Vsetin also supplied electric drives for very large vertical lathes produced by CKD in Blansko (N 49-22, E 16-40). They were of two types -- 2,500 and 4,000 -- the figures representing the diameter of the rotating base in millimeters. The same electric drive was used for both types of machines, i.e., a DC drive motor which had an output of 45 kw., and a maximum of 1,800 rpm. The number of revolutions was regulated by field weakening. The field could be weakened to less than 50% of its maximum value. The electric drive was calculated and designed by the V.I. Lenin Works and the first few units were produced by them; MEZ Vsetin took over the production in 1951 using the original design, except that they equipped the drive with rototrol control. MEZ Vsetin started deliveries in 1953 and about 20 units were delivered as of late summer 1954. Some of the first units were considered urgent and were destined for the USSR. [redacted] more of the 2,500 than the 4,000 type were produced. It was believed that deliveries would continue for an indefinite period.
7. In 1953, ZPS Hulin (N 49-19, E 17-28) ordered an electric drive for a type of vertical lathe which was to be produced in that plant. The driving motor was to be rated for approximately 25 kw. As of late summer 1954, the prototype was still in the Specifications Department of MEZ Vsetin. ZPS Hulin considered this type of vertical lathe to be one of its main items of production and, as a result, rather large continuous orders for these electric drives were expected at MEZ Vsetin.

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